one of the greatest of geographical productions. Its preparation occupied twenty years of the author's life. Reclus revisited the United States in 1891 to collect material for his volume on this country. The last to be written were the two volumes on South America, and at the conclusion of the work Reclus wrote "A Parting Word" to his readers, in which he said:

> I may congratulate myself on the good fortune by which, in the course of a life not lacking in stirring incidents, I have been enabled to fulfill my engagements of regular publication without ever once breaking faith with my readers.

Reclus was endowed with rare scientific qualities, and possessed a literary gift that interested most readers in all that he wrote. This happy combination made him one of the most widely read of geographers.

THE BIBLIOTECA NAZIONALE CENTRALE of Florence announces, under date of June 8, the death of Comm. DESIDERIO CHILOVI, its chief Librarian for the past twenty years.

THE ROYAL BOHEMIAN SCIENTIFIC SOCIETY, of Prague, reports the death, on the 12th of June, in his 88th year, of W. W. RITTER VON TOMEK, the oldest member of the Society, and for many years President of the Imp.-Royal Government Council.

WILLIAM ZIEGLER.—Mr. Ziegler died at his summer home in Connecticut on May 24. He had been in excellent health until the previous November, when he was thrown from his carriage and severely injured. Born in Beaver County, Pennsylvania, in 1843, he made his own way, soon developed remarkable talents for business, and, before reaching middle age, accumulated a large fortune. He became known to geographers about five years ago through his zealous promotion of north polar explorations under his own management and solely supported by him. His desire was that the North Pole should be reached by one of his expeditions, and he was willing to spend money without stint to achieve his ambition.

He chose the Franz Josef Land route for his attack on the Pole, in spite of the fact that it had not recently been viewed with much favour. His first expedition, commanded by Mr. Baldwin, reached Franz Josef Land in 1901, but failed to make any important northing, and returned in the summer of 1902. In 1903 the second expedition under Mr. Fiala started north, and succeeded in getting into the heavy ice of Barents Sea, where it is possible their ship may have drifted to Franz Josef Land; but nothing has been heard from the party, as the relief expedition of 1904 was prevented by the ice from getting north. At the time of his death Mr. Ziegler had just completed arrangements for this year's relief expedition, which started from Norway late in June on the *Terra Nova*, in charge of Mr. W. S. Champ. It is said that Mr. Ziegler instructed the executors of his estate to continue the work of his polar expeditions.

NEW MAPS.

AFRICA.

AFRICA.—Map of Africa. Scale: 1,000,000, or 15.7 statute miles to an inch. Sheet 71 (Monrovia). Intelligence Division of the War Office, London, 1905.

Includes most of Liberia, and a part of the Ivory Coast. A note says that, excepting the Anglo-Liberian frontier, no part of the area has been surveyed, and the positions of villages, rivers, and hills are only approximate. About two-thirds of

the sheet is practically white; still, the naming of the civilized settlements of Liberia in their approximate position is an advantage which, perhaps, this sheet is unique in offering. Cape *Montserrado* is printed instead of the accepted form *Mesurado*, which is certainly found in most, if not all, of the best atlases. The original Portuguese was Monte Serrado.

RHODESIA.—River Zambesi from Zumbo to the Victoria Falls. In 3 Sheets. Scale, 1:250,000, or 3.94 statute miles to an inch. British South Africa Company, London, 1905(?).

The latest information concerning the navigability of the various reaches of the Zambezi comes from Major Gibbons, and the facts reported by him in his recent book are recorded on this map. It was compiled chiefly for the administrative staff stationed in districts near the Zambezi, so that on this large scale they may conveniently place upon it further particulars of the navigability of the river and its tributaries in regions adjacent. This information will ultimately be incorporated with the six-sheet official map of Rhodesia.

RHODESIA.—A map of Rhodesia divided into Provinces and Districts under the Administration of the British South Africa Company. 6 Sheets. Scale, 1:1,000,000, or 15.7 statute miles to an inch. British South Africa Company, London, 1903. Price, £1, 4s.

This is a revision of the official map of the Company's sphere of operations, embracing approximately 750,000 square miles. The revision was very carefully done; and new information accumulates so rapidly in that developing region that the two northern sheets were practically redrawn. Gold fields, reefs and mines, altitudes, roads, railroads, and a large nomenclature are among the features. The large scale permits the introduction of much explanatory matter relating to geology, topography, the fly districts, forest and grass areas, etc. No attempt is made to delineate the surface forms, but this could not be done accurately on so large a scale. For most purposes this is the best map yet produced of this large territory.

TOGO.—Die Umgebung der Station Atakpame. Scale, 1:100,000, or 1.57 statute mile to an inch. By P. Sprigade. Drawn by G. Thomas. *Mitt. von Forsch. und Gelehr. aus den Deutsch. Schutzgeb.*, Vol. 18, No. 2. Berlin, 1905.

Atakpame, a German station in the interior of Togo, lies among hills from 1,000 to 2,000 feet high, forming the water-parting between the Amutshu and Atalo Rivers. These hills overlook a very fertile and populous farming region, and this sheet distinguishes it as one of the best-mapped districts in tropical Africa.

It is based upon the ascertained position of Loboto, one of the points in Plehn's triangulation of central Togo, and upon much other work with theodolite, compass, and chain, the result being an accumulation of accurate topographical data which could not adequately be expressed on a scale of 1:200,000, which is the scale of the map of Togo, now far advanced. Double this scale was, therefore, adopted for this sheet, which contains a most unusual amount of information for an African map. We see the wide-built roads, the bridges, the causeways over the swamps, native paths, Government and mission stations, camping grounds, and other cultural features in their relation to the topography of the entire region. There are a large number of place-names, with the number of huts in each settlement, the width of the streams at various parts of their courses, and the position of the native markets, often at a considerable distance from villages, or even houses. A special map of Togo on a scale of 1:100,000 (about forty sheets) will probably not be long delayed, as the cartographic material that the German officials have collected cannot be satisfactorily used on a much smaller scale.

AMERICA.

NEW JERSEY.—Geological Survey of New Jersey. Scale, 1:63,360, or one statute mile to an inch. Revised Edition of the original Survey of 1882 and 1883. Sheets 22, 23, 24, 26, 27, 28, 31, and 32. Contour interval, 10 to 50 feet. Henry B. Kümmel, State Geologist; C. C. Vermeule, Topographer. Trenton.

These eight sheets are the first to be issued of the revision of the Topographic Atlas of New Jersey. At the beginning of 1903 some of the sheets of the Atlas were out of print, so that new editions were necessary. This fact gave opportunity for extensive revision of the sheets, which were especially in need of correction in the neighbourhood of the more important cities. The necessary field revision and the preparation of the new maps have occupied much of the attention of the topographic force since early in 1903.

Eight of the seventeen sheets in the series have now been issued, and the complete set will be numbered from 21 to 37 inclusive. They will take the place of the old sheets 1 to 17.

In large part, these revised sheets cover the same territory as those which they supplant, but one important change has been made. The old sheets overlapped, but many purchasers thought that sheets which did not overlap, but were matched edge to edge and arranged in tiers across the State, would be preferable. The new sheets are in accord with this suggestion.

NEW JERSEY.—Topographic Map of New Jersey. Scale, 2,000 feet to an inch (Dover-Stanhope, Boonton, and Chester Sheets). Contour Interval in level country, 10 feet; in hilly country, 20 feet. Geological Survey of New Jersey, Trenton, 1905.

The area represented by these three sheets was resurveyed in 1904. The original topographic survey of the State was completed in 1887 and the resurvey was begun in 1898. The new map of which these sheets are a part was needed, because the rapid extension of city streets, railroads, new townships, political boundaries, mining information, etc., could not all be well laid down on the scale of the old survey. The scale of the new maps is about two and a half times that of the maps of the old series. The work is progressing slowly, but the larger scale permits many additional details and corrections and a more accurate delineation of a large variety of facts than could be shown on the one-inch scale. It will be used for many purposes in preference to the one-inch map, but cannot supplant the revised edition of the latter, now in progress, for general atlas use.

UNITED STATES.—Geologic Atlas of the United States. No. 121. Waynesburg, Folio, Pennsylvania. Washington, 1905.

The quadrangle is well within the great Pittsburgh coal field on one of the Allegheny plateaux. The stream valleys are narrow, the slopes steep, and the hill tops have no extensive levels, so that there are only small areas desirable for cultivation, most of the land being used for pasturage.

No. 123. Elders Ridge, Folio, Pennsylvania. Washington, 1905.

This quadrangle is in central-western Pennsylvania, a rural area on one of the Allegheny plateaux where the streams are deepening their channels so rapidly as to prevent the development of broad flood-plains, with the result that good soil afforded by alluvial deposits is not extensive. There are about 30 hamlets in the quadrangle, and Avonmore, the largest village, has a population of about 700.

CUBA.—Carte de Cuba. (No Scale.) *Bull. de la Soc. de Géog. de Lille.* May, 1905.

The facts shown on this map are emphasized by the exclusion of everything else. These facts are: all the chief ports; the east and west trunk line railroad; the railroads

connecting north with south coast ports; the three regions in which tobacco, sugar, and cattle-raising respectively predominate; and the eastern region of forests, mining, and some fruit. Thus the most vital facts relating to inland transportation and the distribution of the leading industries may be readily seen.

MEXICO.—Mexican Railways and Lines of Navigation in 1904. Scale, 150 miles to an inch. In "Commercial Mexico in 1905." Bureau of Statistics. Washington, 1905.

Shows the extension of the Mexican railroad system to the frontier of Guatemala. The names of steamship lines plying on the various sea routes are given.

EUROPE.

AUSTRIA-HUNGARY.—Brionische Inseln. Scale, 1:36,000, or 0.57 statute mile to an inch. *Deutsche Rundschau für Geog. und Stat.* Jahr. 27, Heft 8. A. Hartleben's Verlag. Vienna, 1905.

Showing the results of the topographic survey of seven small islands in the Adriatic near the town of Pola. It is an excellent reproduction from the Government map and illustrates an article on the islands. It may interest some American map-makers to observe that the islands, as shown on this plate, are about 40 times larger than the delineation of them on atlas sheets of Europe, the scale for European countries usually being 1:1,500,000; and yet in the Stieler and some other atlases the two larger islands are shown on the small scale with perfect accuracy in general outline. Of course the minor windings of the coast-lines cannot be drawn on such a scale, and the smaller islands can appear only as dots.

CENTRAL EUROPE.—Phaenologische Karte des Frühlingseinzugs in Mitteleuropa. Scale, 1:3,400,000, or 53.6 statute miles to an inch. *Pet. Mitt.* Vol. 51, No. 5. Justus Perthes, Gotha, 1905.

The map and the accompanying paper were prepared by Prof. Dr. E. Ihne of Darmstadt. In many places throughout Germany and, to a lesser extent, in parts of Austria and Switzerland north of the Alps, the time of the blossoming of a considerable number of plants, including some of the fruit trees, has been observed for years. Dr. Ihne has collected and collated a great mass of authentic information on this subject and gives graphic expression on his map to the distribution of the various periods of bloom in Central Europe. He recognizes five periods, the earliest, coloured yellow, being from April 22 to April 28 in the more sheltered or southerly places, as the Rhine valley south of Cologne, or parts of Austria east of the Alps and south of the Danube; red shows the lands where bloom is still early (April 29–May 5), chiefly in river valleys and in wide parts of France and Belgium where climate is softened by the neighbouring ocean; green shows the medium period of bloom (May 6–12) covering nearly all the low plain of the north, except a wide strip along the Baltic coast of Prussia, and also including some of the plateaux among the mountains of south Germany; violet is spread over the regions where the blossoms come out late (May 13–19), as in the zone along the Baltic and the higher lands that join the mountains of the south with the great plain of the north; and blue covers the narrow areas of very late bloom on the hills and ranges that dominate South Germany.

GERMANY.—Küstenänderungen in Süderdithmarschen im 19 Jahrhundert. By L. Müllenhoff. *Pet. Mitt.* Vol. 51, No. 4. Justus Perthes, Gotha, 1905.

Four maps and a profile illustrating a paper by Prof. Dr. R. Hansen on the changes along the west coast of the Dithmarschen in the neighbourhood of the Elbe estuary. The maps are: Ehemaliger Elbeufer, scale, 7.8 statute miles to an inch, showing the former course of the Elbe extending through the Dithmarschen; Trischen, scale, 1,250 feet to an inch, outlining the coasts of the island in 1874, 1884, and

1894, the land area having been much extended in twenty years; Die fiskalische Süderdithmarscher Küste in 1797, 1854, 1894, and 1904, on a scale of 1.8 statute mile to an inch, indicating great changes in the outline of the coast and outlining the dykes built to protect a part of it; Helmsand, another of the Dithmarschen islands, showing that in a century and a half its area has been greatly reduced. A cross section through the dune on Trischen shows its considerable increase in width and in some places in height in 1895 as compared with 1894.

ICELAND.—Öræfajökull og Skeidararsandur. Scale, 1:200,000, or 3.1 statute miles to an inch. Surveyed by the General Staff, Topographic Division. *Geog. Tidskrift* of the Royal Danish Geog. Soc. Vol. 18, Nos. 1–2. Copenhagen, 1905.

An excellent specimen of the survey work that the Danish Government is now carrying forward in Iceland. It shows the courses of the glacial streams and indicates the topography by contours with an interval of 40 metres.

GENERAL.

EDUCATIONAL MAPS.—The Autograph Hand-Maps. The Oxford Geographical Institute, Oxford, England. Price, 1d.

Outline maps to be filled out in the class-room do not usually show topographic delineations, but the special feature of these maps is the insertion of hill-shading in brown. This should add to their educational value so far as topographic forms influence the distribution of commercial routes, precipitation, and other facts that the student is required to draw on such maps. Thirty-three maps have now appeared in this series, including most of the European countries and the United States. The natural English and metrical scales are given. Some of the world maps are on the equal area projection, or, in other words, a square inch on any part of the map represents the same number of square miles.

MAP SUPPLEMENTS.—Kartenbeilagen. Bearbeitet von Prof. Paul Langhans. A series of 16 map plates in "the Geographen-Kalender," 1905-1906. Justus Perthes, Gotha, 1905.

This year's issue of the Geographen-Kalender contains the usual instalment of supplementary coloured maps illustrating conspicuous events of the past year. They include: The northern part of the Hejaz railroad (which, when completed, will connect Damascus with Mecca), showing the section in operation east of the Jordan, about 250 kilometers, and the parts now building, or in course of survey; the route of the British to Lhasa with the new Indian-Tibetan markets of Gyangtse and Tadum; the completed railroad on the Trans-Siberian Railroad, around the south end of Lake Baikal; the growth of the Japanese Empire since 1875, showing lands appropriated or acquired in war, and also the southern part of Sakhalin, lost by Japan in 1875; the French and British spheres of influence in Siam, with the boundaries between that kingdom and the French and English colonies; the boundary changes in West Africa and the Western Sudan, according to the British-French and French-Portuguese agreements; the region of the German Southwest Africa war, indicating farms destroyed; the development of the United States, 1855-1905 (the compiler of this plate was deceived by legislation pending in our Congress: New Mexico, Arizona, Oklahoma and the Indian Territory are still Territories); the cable line to Alaska and its land telegraphs (the connection between St. Michael and Nome is not submarine cable, as indicated, but wireless telegraph); the new boundary between Bolivia and Brazil; the routes of the Merzbacher and Saposchnikov expeditions among the Tian-Shan and Alai-tagh ranges; the Dutch explorations in Borneo and New Guinea; the search of the *Tacoma* for doubtful islands in the Pacific; the

position of Dalgety, capital of the Australian Commonwealth ; the travels of McMillan and Liddell in the basin of the White Nile ; French explorations in the Sahara ; and the new boundary between Brazil and British Guiana.

BOOK NOTICES.

The Andrew J. Stone Explorations in Arctic and Sub-Arctic America. 38 pp., 52 half-tone Illustrations and 3 black-and-white Maps in Text. 4to. Edition limited to 100 numbered copies, all of which have been distributed. The American Museum of Natural History, New York, 1905.

This handsome brochure commemorates the very valuable results of the collecting and exploratory expeditions of Mr. Stone in the Arctic regions of North America between 1897 and 1904. The generosity of a few persons made it possible for Mr. Stone to attack the zoological problems of northern Alaska and the Canadian northwest, and the outcome should encourage such donations for scientific purposes. His expeditions were rich in contributions to our knowledge of the distribution of the game animals of the high north, and in the correction of the maps of the Arctic coast between the mouth of the Mackenzie and Cape Lyon. Some charted lakes and rivers were found to have no existence, and others that had been overlooked were charted and named by Mr. Stone. He also took many photographs and anthropometric measurements of Indian and Eskimo tribes. Somewhat extended descriptions of his work are given in the *Bulletin* of the Amer. Mus. Nat. Hist., Vol. 13, pp. 31–62, and Vol. 14, pp. 53–68. The brochure contains many beautiful pictures of big game animals collected by Mr. Stone and now mounted at the Museum. His collections during three seasons, 1901–1903, numbered 2,325 mammals and 617 birds, besides many nests and eggs.

Le Mexique au Début du XXe Siècle. Par le Prince Roland Bonaparte, Léon Bourgeois, Jules Claretie, d'Estournelles de Constant, A. de Foville, Hippolyte Gomot, O. Gréard, Albin Haller, Camille Krantz, Michel Lagrave, Louis de Launay, P. Leroy-Beaulieu, E. Levasseur, le Général Niox, Alfred Picard, Elisée Reclus. 2 vols., 394 and 374 pp., many black-and-white maps in the text and 4 coloured maps. Librairie Ch. Delagrave, Paris, 1904. (Price, fr. 30.)

At the close of the Paris Exposition in 1900, M. de Mier, the Mexican Minister to France, conceived the idea of enlisting the collaboration of eminent specialists to write a description of Mexico in her various aspects. He placed before them all the best sources of information, and in less than five years his idea was realized in these two sumptuous volumes. Sixteen men, widely known in their special fields of study, are the authors, and the whole work has been under the editorial supervision of E. Levasseur, who has recently been chosen President of the Collège de France.

It is a beautiful and costly work, superior in mechanical execution and in maps, and each of its seventeen long sections bears the stamp of expert preparation. Some risk, however, is involved in this method of producing a book, and these volumes have not wholly escaped. Some of the topics overlap, and there are several instances of inconsistency in the facts given by different authors. Some statements, also, are likely to be disputed ; and, in fact, two or three not very vital remarks by Prince Roland Bonaparte, relating to the Indian population, have already been called in